Plant Science, 53 (1987) 281 – 284
Elsevier Scientific Publishers Ireland Ltd.

SUBJECT INDEX

Volume 53 (1987/1988)

Acclimatization, in vitro hardening, *Leucaena leucocephala*, micropropagation, tissue culture, 65
Acetate incorporation, systemic insecticides, *Brassica juncea* L., developing seeds, lipid biosynthesis, 201
O-Acetyl-L-serine sulfhydrylase, *Chlamydomonas reinhardtii*, purification, characterization, 93
Adventitious buds, bud primordia, Calabrian pine, meristematic zones, pulse treatment, 147
Ageing, chilling, campesterol, sitosterol/stigmasterol, *Phaseolus vulgaris*, 209
Amaranthus paniculatus, calmodulin, phosphoinositides, glyoxalase, cell proliferation, 45
Amyloplast, wheat, *Triticum aestivum* L., plastid DNA, endosperm, 131
ATPase, Mg^{2+} to ATP ratio, inhibition, plasma membrane, 39
Avena coleoptile test, plant growth inhibition, fatty acids, 35

Black cherry seeds, *Prunus serotina*, α-D-mannosidase, glycoproteins, swainsonine inhibition, 1
Black locust, *Robina pseudoacacia* L., micropropagation, tissue culture, nitrogen-fixing tree, forestry, rejuvenation, 183
Blue light perception, *Brassica oleracea* L., NADH oxidase, plasma membrane purification, *Vigna radiata* L., redox components, 109
Brassica juncea L., systemic insecticides, developing seeds, lipid biosynthesis, acetate incorporation, 201
Brassica napus, cybrids, cytoplasmic male sterility, mitochondrial DNA, protoplast fusion, oilseed rape, 243
Brassica oleracea L., blue light perception, NADH oxidase, plasma membrane purification, *Vigna radiata* L., redox components, 109
Bud primordia, adventitious buds, Calabrian pine, meristematic zones, pulse treatment, 147

Calabrian pine, adventitious buds, bud primordia, meristematic zones, pulse treatment, 147
Calmodulin, *Amaranthus paniculatus*, phosphoinositides, glyoxalase, cell proliferation, 45
Campesterol, chilling, ageing, sitosterol/stigmasterol, *Phaseolus vulgaris*, 209
Carotenoid/chlorophyll, chill-sensitivity, choline, chlorophyll, water stress, chill hardening, *Vigna radiata*, 223
Cell differentiation, in vitro morphogenesis, nuclear DNA, changes in DNA, *Nicotiana tabacum*, 73
Cell proliferation, *Amaranthus paniculatus*, calmodulin, phosphoinositides, glyoxalase, 45
–, protein kinase, germination, *Pisum sativum*, 271
Changes in DNA, in vitro morphogenesis, nuclear DNA, cell differentiation, *Nicotiana tabacum*, 73
Characterization, *Chlamydomonas reinhardtii*, *O*-acetyl-L-serine sulfhydrylase, purification, 93
Chill hardening, chill-sensitivity, choline, chlorophyll, carotenoid/chlorophyll, water stress, *Vigna radiata*, 223
Chilling, ageing, campesterol, sitosterol/stigmasterol, *Phaseolus vulgaris*, 209
Chill-sensitivity, choline, chlorophyll, carotenoid/chlorophyll, water stress, chill hardening, *Vigna radiata*, 223
Chlamydomonas reinhardtii, *O*-acetyl-L-serine sulfhydrylase, purification, characterization, 93
Chlorophyll, chill-sensitivity, choline, carotenoid/chlorophyll, water stress, chill hardening, *Vigna radiata*, 223
Choline, chill-sensitivity, chlorophyll, carotenoid/chlorophyll, water stress, chill hardening, *Vigna radiata*, 223
Citrullus lanatus, ribulose bisphosphate carboxylase, subunits, synthesis, phytochrome, light, 121
Colon formation, maize, *Zea mays* L., protoplasts, conditioned medium, 249
Conditioned medium, maize, *Zea mays* L., protoplasts, colon formation, 249
Culture cycle, folate interconversion, folate enzymes, *Euglena*, 21
Cybrids, *Brassica napus*, cytoplasmic male sterility, mitochondrial DNA, protoplast fusion, oilseed rape, 243
Cytoplasmic male sterility, *Brassica napus*, cybrids, mitochondrial DNA, protoplast fusion, oilseed rape, 243

Developing seeds, systemic insecticides, *Brassica juncea* L., lipid biosynthesis, acetate incorporation, 201
Direct gene transfer, *Nicotiana tabacum*, *Vigna aconitifolia*, plant cultivar, 87
Distribution, lectin activity, tissues, winged bean (*Psophocarpus tetragonolobus* (L.) DC), 161
Dwarf plants development, gibberellic acid, poly(A)-mRNA, in vitro translation, 11

Endosperm, wheat, *Triticum aestivum* L., amyloplast, plastid DNA, 131
Enzyme changes, vegetable marrow (*Cucurbita pepo* L.), growth, kinetin, reducing sugars, sucrose, 29
Epilobium, plastids, ultrastructural observations, microgametogenesis, 139

Euglena, folate interconversion, folate enzymes, culture cycle, 21

Fatty acids, plant growth inhibition, *Avena* coleoptile test, 35
1′-Fluorosucrose, fructose, glucose, sucrose carrier, sugar transport, 101
Folate enzymes, folate interconversion, culture cycle, *Euglena*, 21
Folate interconversion, folate enzymes, culture cycle, *Euglena*, 21
Forestry, *Robina pseudoacacia* L., Black locust, micropropagation, tissue culture, nitrogen-fixing tree, rejuvenation, 183
Fructose, 1′-fluorosucrose, glucose, sucrose carrier, sugar transport, 101

Genomic variability, wheat, somatic tissue culture, mitochondrial DNA, reciprocal recombination, 191
Germination, protein kinase, cell proliferation, *Pisum sativum*, 271
Gibberellic acid, dwarf plants development, poly(A)-mRNA, in vitro translation, 11
Glucose, 1′-fluorosucrose, fructose, sucrose carrier, sugar transport, 101
Glutathione, homoglutathione, synthetase, purification, specificity, mung bean, pea, 229
Glutelins, immunoblotting, 'in situ' hybridization, Northern blot analysis, *Zea mays* embryo, zeins, 215
Glycoproteins, *Prunus serotina*, black cherry seeds, α-D-mannosidase, swainsonine inhibition, 1
Glyoxalase, *Amaranthus paniculatus*, calmodulin, phosphoinositides, cell proliferation, 45
Growth, vegetable marrow (*Cucurbita pepo* L.), enzyme changes, kinetin, reducing sugars, sucrose, 29
Growth regulators, *Pithecellobium dulce*, tree legume, protoplasts, plant regeneration, osmotic potential, protoplast isolation enzymes, 257

Hairy root, kanamycin resistance, T-DNA of *Agrobacterium rhizogenes*, transformation, tobacco, 53
Homoglutathione, glutathione, synthetase, purification, specificity, mung bean, pea, 229

Immunoblotting, glutelins, 'in situ' hybridization, Northern blot analysis, *Zea mays* embryo, zeins, 215
Inhibition, ATPase, Mg^{2+} to ATP ratio, plasma membrane, 39
'In situ' hybridization, glutelins, immunoblotting, Northern blot analysis, *Zea mays* embryo, zeins, 215
In vitro hardening, acclimatization, *Leucaena leucocephala*, micropropagation, tissue culture, 65
In vitro morphogenesis, nuclear DNA, cell differentiation, changes in DNA, *Nicotiana tabacum*, 73
In vitro translation, gibberellic acid, dwarf plants development, poly(A)-mRNA, 11
Ipomoea batatas, sweet potato, protoplasts, mesophyll protoplasts, 157
Isozymes, somaclonal variation, potato, 81
Isoenzymes, *Medicago*, somatic hybridization, protoplast fusion, manual isolation, nurse culture, 263

Kanamycin resistance, hairy root, T-DNA of *Agrobacterium rhizogenes*, transformation, tobacco, 53
Kinetin, vegetable marrow (*Cucurbita pepo* L.), growth, enzyme changes, reducing sugars, sucrose, 29

Lectin activity, distribution, tissue, winged bean (*Psophocarpus tetragonolobus* (L.) DC), 161
Lemon, *Phoma tracheiphila*, Mal secco, variability, 177
Leucaena leucocephala, acclimatization, in vitro hardening, micropropagation, tissue culture, 65
Light, *Citrullus lanatus*, ribulose bisphosphate carboxylase, subunits, synthesis, phytochrome, 121
Lipid biosynthesis, systemic insecticides, *Brassica juncea* L, developing seeds, acetate incorporation, 201

Maize, *Zea mays* L., protoplasts, conditioned medium, colon formation, 249
Mal secco, *Phoma tracheiphila*, lemon, variability, 177
α-D-Mannosidase, *Prunus serotina*, black cherry seeds, glycoproteins, swainsonine inhibition, 1
Manual isolation, *Medicago*, somatic hybridization, protoplast fusion, murse culture, isoenzymes, 263
Medicago, mitochondrial and chloroplastic DNAs, mitochondrial recombination, somatic hybrids, 237
—, somatic hybridization, protoplast fusion, manual isolation, nurse culture, isoenzymes, 263
Meristematic zones, adventitious buds, bud primordia, Calabrian pine, pulse treatment, 147
Mesophyll protoplasts, *Ipomoea batatas*, sweet potato, protoplasts, 157
Mg^{2+} to ATP ratio, ATPase, inhibition, plasma membrane, 39
Microgametogenesis, plastids, epilobium, ultrastructural observations, 139
Micropropagation, acclimatization, in vitro hardening, *Leucaena leucocephala*, tissue culture, 65
—, *Robina pseudoacacia* L., Black locust, tissue culture, nitrogen-fixing tree, forestry, rejuvenation, 183
Mitochondrial and chloroplastic DNAs, mitochondrial recombination, somatic hybrids, *Medicago*, 237
Mitochondrial DNA, *Brassica napus*, cybrids, cytoplasmic male sterility, protoplast fusion, oilseed rape, 243
—, wheat, somatic tissue culture, genomic variability, reciprocal recombination, 191
Mitochondrial recombination, mitochondrial and chloroplastic DNAs, somatic hybrids, *Medicago*, 237
Mung bean, homoglutathione, glutathione, synthethase, purification, specificity, pea, 229

NADH oxidase, blue light perception, *Brassica oleracea* L., plasma membrane purification, *Vigna radiata* L., redox components, 109
Nicotiana tabacum, in vitro morphogenesis, nuclear DNA, cell differentiation, changes in DNA, 73

—, *Vigna aconitifolia*, direct gene transfer, plant cultivar, 87
Nitrogen-fixing tree, *Robina pseudoacacia* L., Black locust, micropropagation, tissue culture, forestry, rejuvenation, 183
Northern blot analysis, glutelins, immunoblotting, 'in situ' hybridization, *Zea mays* embryo, zeins, 215
Nuclear DNA, in vitro morphogenesis, cell differentiation, changes in DNA, *Nicotiana tabacum*, 73
Nurse culture, *Medicago*, somatic hybridization, protoplast fusion, manual isolation, isoenzymes, 263

Oilseed rape, *Brassica napus*, cybrids, cytoplasmic male sterility, mitochondrial DNA, protoplast fusion, 243
Osmotic potential, *Pithecellobium dulce*, tree legume, protoplasts, plant regeneration, growth regulators, protoplast isolation enzymes, 257

Pea, homoglutathione, glutathione, synthetase, purification, specificity, mung bean, 229
Phaseolus vulgaris, chilling, ageing, campesterol, sitosterol/stigmasterol, 209
Phoma tracheiphila, lemon, Mal secco, variability, 177
Phosphoinositides, *Amaranthus paniculatus*, calmodulin, glyoxalase, cell proliferation, 45
Phytochrome, *Citrullus lanatus*, ribulose bisphosphate carboxylase, subunits, synthesis, light, 121
Pisum sativum, protein kinase, cell proliferation, germination, 271
Pithecellobium dulce, tree legume, protoplasts, plant regeneration, growth regulators, osmotic potential, protoplast isolation enzymes, 257
Plant cultivar, *Nicotiana tabacum*, *Vigna aconitifolia*, direct gene transfer, 87
Plant growth inhibition, fatty acids, *Avena* coleoptile test, 35
Plant regeneration, *Pithecellobium dulce*, tree legume, protoplasts, growth regulators, osmotic potential, protoplast isolation enzymes, 257
Plasma membrane, ATPase, Mg^{2+} to ATP ratio, inhibition, 39
Plasma membrane purification, blue light perception, *Brassica oleracea* L., NADH oxidase, *Vigna radiata* L., redox components, 109
Plastid DNA, wheat, *Triticum aestivum* L., amyloplast, endosperm, 131
Plastids, epilobium, ultrastructural observations, microgametogenesis, 139
Poly(A)-mRNA, gibberellic acid, dwarf plants development, in vitro translation, 11
Potato, somaclonal variation, isozymes, 81
Protein kinase, cell proliferation, germination, *Pisum sativum*, 271
Protoplast fusion, *Brassica napus*, cybrids, cytoplasmic male sterility, mitochondrial DNA, oilseed rape, 243
—, *Medicago*, somatic hybridization, manual isolation, nurse culture, isoenzymes, 263
Protoplast isolation enzymes, *Pithecellobium dulce*, tree legume, protoplasts, plant regeneration, growth regulators, osmotic potential, 257
Protoplasts, *Ipomoea batatas*, sweet potato, mesophyll protoplasts, 157
—, maize, *Zea mays* L., conditioned medium, colon formation, 249
—, *Pithecellobium dulce*, tree legume, plant regeneration, growth regulators, osmotic potential, protoplast isolation enzymes, 257
—, *Solanum tuberosum* L., regeneration, 167
Prunus serotina, black cherry seeds, α-D-mannosidase, glycoproteins, swainsonine inhibition, 1
Pulse treatment, adventitious buds, bud primordia, Calabrian pine, meristematic zones, 147
Purification, *Chlamydomonas reinhardtii*, *O*-acetyl-L-serine sulfhydrylase, characterization, 93
—, homoglutathione, glutathione, synthetase, specificity, mung bean, pea, 229

Reciprocal recombination, wheat, somatic tissue culture, mitochondrial DNA, genomic variability, 191
Redox components, blue light perception, *Brassica oleracea* L., NADH oxidase, plasma membrane purification, *Vigna radiata* L., 109
Reducing sugars, vegetable marrow (*Cucurbita pepo* L.), growth, enzyme changes, kinetin, sucrose, 29
Regeneration, *Solanum tuberosum* L., protoplasts, 167
Rejuvenation, *Robina pseudoacacia* L., Black locust, micropropagation, tissue culture, nitrogen-fixing tree, forestry, 183
Ribulose bisphosphate carboxylase, *Citrullus lanatus*, subunits, synthesis, phytochrome, light, 121
Robina pseudoacacia L., Black locust, micropropagation, tissue culture, nitrogen-fixing tree, forestry, rejuvenation, 183

Sitosterol/stigmasterol, chilling, ageing, campesterol, *Phaseolus vulgaris*, 209
Solanum tuberosum L., protoplasts, regeneration, 167
Somaclonal variation, isozymes, potato, 81
Somatic hybridization, *Medicago*, protoplast fusion, manual isolation, nurse culture, isoenzymes, 263
Somatic hybrids, mitochondrial and chloroplastic DNAs, mitochondrial recombination, *Medicago*, 237
Somatic tissue culture, wheat, mitochondrial DNA, genomic variability, reciprocal recombination, 191
Specificity, homoglutathione, glutathione, synthetase, purification, mung bean, pea, 229
Subunits, *Citrullus lanatus*, ribulose bisphosphate carboxylase, synthesis, phytochrome, light, 121
Sucrose, vegetable marrow (*Cucurbita pepo* L.), growth, enzyme changes, kinetin, reducing sugars, 29
Sucrose carrier, 1′-fluorosucrose, fructose, glucose, sugar transport, 101
Sugar transport, 1′-fluorosucrose, fructose, glucose, sucrose carrier, 101
Swainsonine inhibition, *Prunus serotina*, black cherry seeds, α-D-mannosidase, glycoproteins, 1

Sweet potato, *Ipomoea batatas*, protoplasts, mesophyll protoplasts, 157
Synthesis, *Citrullus lanatus*, ribulose bisphosphate carboxylase, subunits, phytochrome, light, 121
Synthetase, homoglutathione, glutathione, purification, specificity, mung bean, pea, 229
Systemic insecticides, *Brassica juncea* L, developing seeds, lipid biosynthesis, acetate incorporation, 201

T-DNA of *Agrobacterium rhizogenes*, hairy root, kanamycin resistance, transformation, tobacco, 53
Tissue culture, acclimatization, in vitro hardening, *Leucaena leucocephala*, micropropagation, 65
Tissue culture, *Robina pseudoacacia* L., Black locust, micropropagation, nitrogen-fixing tree, forestry, rejuvenation, 183
Tissues, distribution, lectin activity, winged bean (*Psophocarpus tetragonolobus* (L.) DC), 161
Tobacco, hairy root, kanamycin resistance, T-DNA of *Agrobacterium rhizogenes*, transformation, 53
Transformation, hairy root, kanamycin resistance, T-DNA of *Agrobacterium rhizogenes*, tobacco, 53
Tree legume, *Pithecellobium dulce*, protoplasts, plant regeneration, growth regulators, osmotic potential, protoplast isolation enzymes, 257
Triticum aestivum L., wheat, amyloplast, plastid DNA, endosperm, 131

Ultrastructural observations, plastids, epilobium, microgametogenesis, 139

Variability, *Phoma tracheiphila*, lemon, Mal secco, 177
Vegetable marrow (*Cucurbita pepo* L.), growth, enzyme changes, kinetin, reducing sugars, sucrose, 29
Vigna aconitifolia, *nicotiana tabacum*, direct gene transfer, plant cultivar, 87
Vigna radiata, chill-sensitivity, choline, chlorophyll, carotenoid/chlorophyll, water stress, chill hardening, 223
Vigna radiata L., blue light perception, *Brassica oleracea* L., NADH oxidase, plasma membrane purification, redox components, 109

Water stress, chill-sensitivity, choline, chlorophyll, carotenoid/chlorophyll, chill hardening, *Vigna radiata*, 223
Wheat, somatic tissue culture, mitochondrial DNA, genomic variability, reciprocal recombination, 191
—, *Triticum aestivum* L., amyloplast, plastid DNA, endosperm, 131
Winged bean (*Psophocarpus tetragonolobus* (L.) DC), distribution, lectin activity, tissues, 161

Zea mays embryo, glutelins, immunoblotting, 'in situ' hybridization, Northern blot analysis, zeins, 215
Zea mays L., maize, protoplasts, conditioned medium, colon formation, 249
Zeins, glutelins, immunoblotting, 'in situ' hybridization, Northern blot analysis, *Zea mays* embryo, 215

Plant Science, 53 (1987) 285–286
Elsevier Scientific Publishers Ireland Ltd.

AUTHOR INDEX

Volume 53 (1987/1988)

Abdullah, A.A. 147
Alicchio, R. 81
Altamura, M.M. 73
Antonioli, C. 81
Asard, H. 109

Bagga, S. 45
Bakhetia, D.R.C. 201
Barghchi, M. 183
Barsby, T.L. 243
Bassi, P. 73
Bayliss, M.W. 131
Benslimane, A.-A. 191
Bhojwani, S.S. 65
Bianchetti, R. 21
Binberg, P.R. 249
Botha, F.C. 121
Bralczyk, J. 11
Brenner, M.L. 249
Briskin, D.P. 39

Caboche, M. 53
Caubergs, R. 109
Cavallini, A. 73
Chiatante, D. 271
Chin, C.-K. 101
Cionini, G. 73
Cionini, P.G. 73
Cocking, E.C. 263
Cremonini, R. 73
Crosti, P. 21

Daie, J. 101
Das, R. 45
Dattee, Y. 237
Davey, M.R. 263
de Buyser, J. 191
De Greef, J.A. 109
Dhawan, V. 65
D'hont, A. 237
Dowson Day, M.J. 131

Eapen, S. 87

Falconet, D. 191

Galván, F. 93
Gambini, A. 21
Giannini, J.L. 39
Gill, R. 257
Gilmour, D.M. 263
Golz, C. 87
Gómez, J. 215
Grace, J. 147
Grant, I. 243
Graziani, L. 81
Gupta, S. 29
Guye, M.G. 209,223

Hartmann, C. 191
Henry, Y. 191

Jouanin, L. 53

Kemble, R.J. 243
Köhler, F. 87
Kowallik, K.V. 139
Kumari, A. 201

Lecerf, M. 167
Lejeune, B. 191
León, J. 93
Levi, M. 271
Ludevid, M.D. 215

Macnicol, P.K. 229
Madaiah, M. 161
Masson, J. 167
Miller, G.W. 39
Monacelli, B. 73
Muller, J.F. 53
Munshi, S.K. 201

Nadel, B. 177
Niizeki, H. 157
Nishikawa, Y. 35

Ohkawa, M. 35
Otani, M. 157

Pagès, M. 215
Pasqua, G. 73
Paul, Y. 29
Pautot, V. 53
Pelletier, G. 167
Perennec, P. 167
Petersen, W.L. 249

Pitcher, L. 101
Poulton, J.E. 1
Pryke, J.A. 131
Puigdomènech, P. 215
Pushnik, J.C. 39

Quetier, F. 191, 237

Renders, D. 109
Rode, A. 191
Romero, L.C. 93
Roncarati, R. 81
Rousselle, P. 167

Sanadi, S. 201
Sánchez-Martínez, D. 215
Sassoli, O. 73
Saxena, P.K. 257
Schieder, O. 87
Schmitz, U.K. 139
Sgorbati, S. 271
Shet, M.S. 161
Shimada, T. 157
Small, J.G.C. 121
Somers, D.A. 249
Sopory, S.K. 45
Sparvoli, E. 271
Spiegel-Roy, P. 177
Sukhija, P.S. 201
Szczegielniak, J. 11

Teoule, E. 237
Torrent, M. 215
Tourneur, C. 53
Tourneur, J. 53
Tran Thanh Van, K. 73

Vannini, C. 81
Vega, J.M. 93
Vigh, L. 223
Vilaine, F. 53

Waln, K.T. 1
Wasilewska, L.D. 11
Wilson, J.M. 223

Yarrow, S.A. 243